



STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

Division of Facilities Construction and Management

DFCM

**MULTI-STEP BIDDING PROCESS
FOR
CONTRACTORS**

**Request For Solicitation For
Construction Services**

Stage II - Roofing Contractors Bidders List

July 25, 2006

**ROOFING IMPROVEMENTS
HEDCO BUILDING (ENERGY AND
MINERAL RESEARCH OFFICE)**

**UNIVERSITY OF UTAH
SALT LAKE CITY, UTAH**

DFCM Project No. 06025750

Ridgeline Roof Consulting, Inc.

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Current copies of the following documents are hereby made part of these contract documents by reference. These documents are available on the DFCM web site at <http://dfcm.utah.gov> or are available upon request from DFCM:

DFCM General Conditions dated May 25, 2005

DFCM Application and Certificate for Payment dated May 25, 2005

Technical Specifications:

Drawings:

The Agreement and General Conditions dated May 25, 2005 have been updated from versions that were formally adopted and in use prior to this date. The changes made to the General Conditions are identified in a document entitled Revisions to General Conditions that is available on DFCM's web site at <http://dfcm.utah.gov>

INVITATION TO BID

ONLY FIRMS PRE-QUALIFIED DURING STAGE I OF THE RFS ARE ALLOWED TO BID ON THIS PROJECT

The State of Utah - Division of Facilities Construction and Management (DFCM) is requesting bids for the construction of the following project:

ROOFING IMPROVEMENTS - HEDCO BUILDING (ENERGY & MINERAL RESEARCH OFFICE)
UNIVERSITY OF UTAH – SALT LAKE CITY, UTAH
PROJECT NO: 06025750

Project Description: Remove and replace existing built up roof with new 90 mil EPDM on approximately 16,800 sq. ft. of roof area. Construction Cost Estimate: \$150,000

<u>FIRM NAME</u>	<u>POINT OF CONTACT</u>	<u>PHONE</u>	<u>FAX</u>
Capitol Roofing Service	Stewart B. Paulsen	(801) 562-5568	(801) 562-1159
Clark's Quality Roofing	Perry Clark	(801) 266-3575	(801) 266-3692
Collins Roofing, Inc.	Douglas Collins	(801) 224-0361	(801) 224-0361
Contract West Roofing, Inc.	Craig Peters	(801) 943-2427	(801) 943-0257
Conwest, Inc.	Phil Scarborough	(801) 553-0640	(815) 550-1136
Dave Atkinson Roofing, Inc.	Dave Atkinson	(435) 770-4299	(435) 258-2225
Island Heights Construction, Inc.	Terry Cronquist	(435) 753-7403	(435) 753-7452
Kendrick Brothers Roofing, Inc.	Brad L. Kendrick	(801) 731-2000	(801) 731-2020
Nielco Roofing and Sheet Metal, Inc.	Gary Nielson	(801) 263-0444	(801) 263-0485
Redd Roofing Company	K. Frank Redd	(801) 621-1363	(801) 621-1540
Summit Roofing & Waterproofing	Phil Whiting	(801) 529-2596	(801) 732-2186
Superior Roofing and Sheet Metal, Inc	Blake Redd	(801) 266-1473	(801) 266-1522
Utah Tile and Roofing, Inc.	Paul Seppi	(801) 266-9694	(801) 266-6836
Utah Western Roofing	Scott Laufenberg	(801) 294-6154	(801) 294-6155

The bid documents will be available at 10:00 AM on Tuesday, July 25, 2006 in electronic format from DFCM at 4110 State Office Building, Salt Lake City, Utah 84114, telephone (801)538-3018 and on the DFCM web page at <http://dfcm.utah.gov>. For questions regarding this project, please contact Darrell Hunting, Project Manager, DFCM, at (801)538-9617. No others are to be contacted regarding this project. A **MANDATORY** pre-bid meeting and site visit will be held at 1:30 PM on Thursday, July 27, 2006. Meet at the east end of project site. See www.map.utah.edu for campus map. All pre-qualified prime contractors wishing to bid on this project must attend this meeting.

Bids must be submitted by 3:00 PM on Tuesday, August 8, 2006 to DFCM, 4110 State Office Building, Salt Lake City, Utah 84114. Bids will be opened and read aloud in the DFCM Conference Room, 4110 State Office Building, Salt Lake City, Utah. Note: Bids must be received at 4110 State Office Building by the specified time. The contractor shall comply with and require all of its subcontractors to comply with the license laws as required by the State of Utah.

A bid bond in the amount of five percent (5%) of the bid amount, made payable to the Division of Facilities Construction and Management on DFCM's bid bond form, shall accompany the bid.

The Division of Facilities Construction & Management reserves the right to reject any or all bids or to waive any formality or technicality in any bid in the interest of the State.

DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT
MARLA WORKMAN, CONTRACT COORDINATOR
4110 State Office Bldg., Salt Lake City, Utah 84114

STAGE II - MULTI-STEP BIDDING PROCESS

ONLY FIRMS PRE-QUALIFIED DURING STAGE I OF THE RFS ARE ALLOWED TO BID ON THIS PROJECT

1. Invitational Bid Procedures

The following is an overview of the invitational bid process. More detailed information is contained throughout the document. Contractors are responsible for reading and complying with all information contained in this document.

Notification: DFCM will notify each registered pre-qualified firm (via fax or e-mail) when a project is ready for Construction Services and invite them to bid on the project.

Description of Work: A description of work or plans/specifications will be given to each contractor. If required, the plans and specifications will be available on the DFCM web page at <http://dfcm.utah.gov> and on CDs from DFCM, at 4110 State Office Building, Salt Lake City, Utah 84114.

Schedule: The Stage II Schedule shows critical dates including the mandatory pre-bid site meeting (if required), the question and answer period, the bid submittal deadline, the subcontractor list submittal deadline, etc. Contractors are responsible for meeting all deadlines shown on the schedule.

Mandatory Pre-Bid Site Meeting: If a firm fails to attend a pre-bid site meeting labeled “Mandatory” they will not be allowed to bid on the project. At the mandatory meeting, contractors may have an opportunity to inspect the site, receive additional instructions and ask questions about project. The schedule contains information on the date, time, and place of the mandatory pre-bid site meeting.

Written Questions: All questions must be in writing and directed to DFCM’s project manager assigned to this project. No others are to be contacted regarding this project. The schedule contains information on the deadline for submitting questions.

Addendum: All clarifications from DFCM will be in writing and issued as an addendum to the RFS. Addenda will be posted on DFCM’s web site at <http://dfcm.utah.gov>. Contractors are responsible for obtaining information contained in each addendum from the web site. Addenda issued prior to the submittal deadline shall become part of the bidding process and must be acknowledged on the bid form. Failure to acknowledge addenda may result in disqualification from bidding.

Submitting Bids: Bids must be submitted to DFCM 4110 State Office Building, Salt Lake City, Utah 84114 by the deadline indicated on the schedule. Bids submitted after the deadline will not be accepted. Bids will be opened at DFCM on the date, time, and place indicated on the schedule.

Subcontractors List: The firm selected for the project must submit a list of all subcontractors by the deadline indicated on the schedule contained in this document.

Pre-qualified List of Contractors: Contractors shall remain on DFCM’s list of pre-qualified contractors provided: (a) they maintain a performance rating of 4 or greater on each project, (b) they are not suspended for failure to comply with requirements of their contract, (c) the firm has not undergone a significant reorganization involving the loss of key personnel (site superintendents, project managers, owners, etc.) to a degree such that the firm no longer meets the pre-qualification requirements outlined in Stage I, (d) the financial viability of the firm has not significantly changed, and (e) the firm is not otherwise disqualified by DFCM. Note: If a contractor fails to comply with items (a) through (e) above, they may be removed from DFCM’s list of pre-qualified contractors following an evaluation by a review committee. Contractors will be given the opportunity to address the review committee before a decision is made. Pre-qualified contractors are ONLY authorized to bid on projects within the discipline that they were originally pre-qualified under.

2. Drawings and Specifications and Interpretations

Drawings, specifications and other contract documents may be obtained as stated in the Invitation to Bid. If any firm is in doubt as to the meaning or interpretation of any part of the drawings, specifications, scope of work or contract documents, they shall submit, in writing, a request for interpretation to the authorized DFCM representative by the deadline identified in the schedule. Answers to questions and interpretations will be made via addenda issued by DFCM. Neither DFCM or the designer shall be responsible for incorrect information obtained by contractors from sources other than the official drawings/specifications and addenda issued by DFCM.

3. Product Approvals

Where reference is made to one or more proprietary products in the contract documents, but restrictive descriptive materials of one or more manufacturer(s) is referred to in the contract documents, the products of other manufacturers will be accepted, provided they equal or exceed the standards set forth in the drawings and specifications and are compatible with the intent and purpose of the design, subject to the written approval of the Designer. Such written approval must occur prior to the deadline established for the last scheduled addendum to be issued. The Designer's written approval will be included as part of the addendum issued by DFCM. If the descriptive material is not restrictive, the products of other manufacturers specified will be accepted without prior approval provided they are compatible with the intent and purpose of the design as determined by the Designer.

4. Addenda

All clarifications from DFCM will be in writing and issued as an addendum to the RFS. Addenda will be posted on DFCM's web site at <http://dfcm.utah.gov>. Contractors are responsible for obtaining information contained in each addendum from the web site. Addenda issued prior to the submittal deadline shall become part of the bidding process and must be acknowledged on the bid form. Failure to acknowledge addenda shall result in disqualification from bidding. DFCM shall not be responsible for incorrect information obtained by contractors from sources other than official addenda issued by DFCM.

5. Financial Responsibility of Contractors, Subcontractors and Sub-subcontractors

Contractors shall respond promptly to any inquiry in writing by DFCM to any concern of financial responsibility of the Contractor, Subcontractor or Sub-subcontractor. Failure to respond may result in suspension from DFCM's list of pre-qualified contractors.

6. Licensure

The Contractor shall comply with and require all of its Subcontractors to comply with the license laws as required by the State of Utah.

7. Time is of the Essence

Time is of the essence in regard to all the requirements of the contract documents.

8. Bids

Before submitting a bid, each bidder shall carefully examine the contract documents; shall visit the site of the work; shall fully inform themselves as to all existing conditions and limitations; and shall include in the bid the cost of all items required by the contract documents including those added via addenda. If the bidder observes that portions of the contract documents are at variance with applicable laws, building codes, rules, regulations or contain obvious erroneous or uncoordinated information, the bidder shall promptly notify the DFCM Project Manager prior to the bidding deadline. Changes necessary to correct these issues will be made via addenda issued by DFCM.

The bid, bearing original signatures, must be typed or handwritten in ink on the Bid Form provided in the procurement documents and submitted in a sealed envelope at the location specified by the Invitation to Bid prior to the published deadline for the submission of bids.

Bid bond security, in the amount of five percent (5%) of the bid, made payable to the Division of Facilities Construction and Management, shall accompany bid. **THE BID BOND MUST BE ON THE BID BOND FORM PROVIDED IN THE PROCUREMENT DOCUMENTS IN ORDER TO BE CONSIDERED AN ACCEPTABLE BID.**

If the bid bond security is submitted on a form other than DFCM's required bid bond form, and the bid security meets all other legal requirements, the bidder will be allowed to provide an acceptable bid bond by the close of business on the next business day following notification by DFCM of submission of a defective bid bond security. **A cashier's check cannot be used as a substitute for a bid bond.**

9. Listing of Subcontractors

Listing of Subcontractors shall be as summarized in the "Instructions and Subcontractor's List Form", included as part of the contract documents. The subcontractors list shall be delivered to DFCM or faxed to DFCM at (801)538-3677 within 24 hours of the bid opening. Requirements for listing additional subcontractors will be listed in the contract documents.

DFCM retains the right to audit or take other steps necessary to confirm compliance with requirements for the listing and changing of subcontractors. Any contractor who is found to not be in compliance with these requirements may be suspended from DFCM's list of pre-qualified contractors.

10. Contract and Bond

The Contractor's Agreement will be in the form provided in this document. The duration of the contract shall be for the time indicated by the project completion deadline shown on the schedule. The successful bidder, simultaneously with the execution of the Contractor's Agreement, will be required to furnish a performance bond and a payment bond, both bearing original signatures, upon the forms provided in the procurement documents. The performance and payment bonds shall be for an amount equal to one hundred percent (100%) of the Contract Sum and secured from a company that meets the requirements specified in the requisite forms. Any bonding requirements for Subcontractors will be specified in the Supplementary General Conditions.

11. Award of Contract

The Contract will be awarded as soon as possible to the lowest, responsive and responsible bidder, based on the lowest combination of base bid and acceptable prioritized alternates, provided the bid is reasonable, is in the interests of DFCM to accept and after applying the Utah Preference Laws in U.C.A. Title 63, Chapter 56. DFCM reserves the right to waive any technicalities or formalities in any bid or in the bidding. Alternates will be accepted on a prioritized basis with Alternate 1 being highest priority, Alternate 2 having second priority, etc. Alternates will be selected in prioritized order up to the construction cost estimate.

12. Right to Reject Bids

DFCM reserves the right to reject any or all Bids.

13. Withdrawal of Bids

Bids may be withdrawn on written request received from bidders within 24 hours after the bid opening if the contractor has made an error in preparing the bid.

14. DFCM Contractor Performance Rating

As a contractor completes each project, DFCM will evaluate project performance based on the enclosed “DFCM Contractor Performance Rating” form. The ratings issued on this project may affect the firm’s “pre-qualified” status and their ability to obtain future work with DFCM.



STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

DFCM

Division of Facilities Construction and Management

**Stage II
PROJECT SCHEDULE**

PROJECT NAME: ROOFING IMPROVEMENTS - HEDCO BUILDING (ENERGY & MINERAL RESEARCH OFFICE) UNIVERSITY OF UTAH – SALT LAKE CITY, UTAH				
DFCM PROJECT # 06025750				
Event	Day	Date	Time	Place
Stage II Bidding Documents Available	Tuesday	July 25, 2006	10:00 AM	DFCM 4110 State Office Building SLC, UT and DFCM web site*
MANDATORY Pre-bid Site Meeting	Thursday	July 27, 2006	1:30 PM	Hedco Building (Energy & Mineral Research Office) University of Utah SLC, Utah See www.map.utah.edu for map
Deadline for Submitting Questions	Tuesday	August 1, 2006	4:00 PM	DFCM 4110 State Office Building SLC, UT
Final Addendum Issued	Thursday	August 3, 2006	4:00 PM	DFCM web site*
Prime Contractors Turn in Bid and Bid Bond / Bid Opening in DFCM Conference Room	Tuesday	August 8, 2006	3:00 PM	DFCM 4110 State Office Building SLC, UT
Subcontractors List Due	Wednesday	August 9, 2006	3:00 PM	DFCM 4110 State Office Building SLC, UT
Project Completion Deadline	Friday	November 17, 2006	3:00 PM	Project site

* DFCM's web site address is <http://dfcm.utah.gov>

**Division of Facilities Construction and Management****DFCM****BID FORM**

NAME OF BIDDER _____ DATE _____

To the Division of Facilities Construction and Management
4110 State Office Building
Salt Lake City, Utah 84114

The undersigned, responsive to the "Notice to Contractors" and in accordance with the Request for Bids for the **ROOFING IMPROVEMENTS - HEDCO BUILDING (ENERGY & MINERAL RESEARCH OFFICE) - UNIVERSITY OF UTAH - SALT LAKE CITY, UTAH - DFCM PROJECT NO. 06025750** and having examined the Contract Documents and the site of the proposed Work and being familiar with all of the conditions surrounding the construction of the proposed Project, including the availability of labor, hereby proposes to furnish all labor, materials and supplies as required for the Work in accordance with the Contract Documents as specified and within the time set forth and at the price stated below. This price is to cover all expenses incurred in performing the Work required under the Contract Documents of which this bid is a part:

I/We acknowledge receipt of the following Addenda: _____

For all work shown on the Drawings and described in the Specifications and Contract Documents, I/we agree to perform for the sum of:

_____ DOLLARS (\$_____)
(In case of discrepancy, written amount shall govern)

I/We guarantee that the Work will be Substantially Complete by **Friday, November 17, 2006**, should I/we be the successful bidder, and agree to pay liquidated damages in the amount of **\$200.00** per day for each day after expiration of the Contract Time as stated in Article 3 of the Contractor's Agreement.

This bid shall be good for 45 days after bid opening.

Enclosed is a 5% bid bond, as required, in the sum of _____

The undersigned Contractor's License Number for Utah is _____.

BID FORM
PAGE NO. 2

Upon receipt of notice of award of this bid, the undersigned agrees to execute the contract within ten (10) days, unless a shorter time is specified in Contract Documents, and deliver acceptable Performance and Payment bonds in the prescribed form in the amount of 100% of the Contract Sum for faithful performance of the contract. The Bid Bond attached, in the amount not less than five percent (5%) of the above bid sum, shall become the property of the Division of Facilities Construction and Management as liquidated damages for delay and additional expense caused thereby in the event that the contract is not executed and/or acceptable 100% Performance and Payment bonds are not delivered within time set forth.

Type of Organization: _____
(Corporation, Partnership, Individual, etc.)

Any request and information related to Utah Preference Laws:

Respectfully submitted,

Name of Bidder

ADDRESS:

Authorized Signature

BID BOND

(Title 63, Chapter 56, U. C. A. 1953, as Amended)

KNOW ALL PERSONS BY THESE PRESENTS:

That _____ hereinafter referred to as the "Principal," and _____, a corporation organized and existing under the laws of the State of _____, with its principal office in the City of _____ and authorized to transact business in this State and U. S. Department of the Treasury Listed, (Circular 570, Companies Holding Certificates of Authority as Acceptable Securities on Federal Bonds and as Acceptable Reinsuring Companies); hereinafter referred to as the "Surety," are held and firmly bound unto the STATE OF UTAH, hereinafter referred to as the "Obligee," in the amount of \$ _____ (5% of the accompanying bid), being the sum of this Bond to which payment the Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted to Obligee the accompanying bid incorporated by reference herein, dated as shown, to enter into a contract in writing for the _____ Project.

NOW, THEREFORE, THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that if the said principal does not execute a contract and give bond to be approved by the Obligee for the faithful performance thereof within ten (10) days after being notified in writing of such contract to the principal, then the sum of the amount stated above will be forfeited to the State of Utah as liquidated damages and not as a penalty; if the said principal shall execute a contract and give bond to be approved by the Obligee for the faithful performance thereof within ten (10) days after being notified in writing of such contract to the Principal, then this obligation shall be null and void. It is expressly understood and agreed that the liability of the Surety for any and all defaults of the Principal hereunder shall be the full penal sum of this Bond. The Surety, for value received, hereby stipulates and agrees that obligations of the Surety under this Bond shall be for a term of sixty (60) days from actual date of the bid opening.

PROVIDED, HOWEVER, that this Bond is executed pursuant to provisions of Title 63, Chapter 56, Utah Code Annotated, 1953, as amended, and all liabilities on this Bond shall be determined in accordance with said provisions to same extent as if it were copied at length herein.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument under their several seals on the date indicated below, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

DATED this _____ day of _____, 20_____.

Principal's name and address (if other than a corporation):

By: _____

Title: _____

Principal's name and address (if a corporation):

By: _____

Title: _____
(Affix Corporate Seal)

Surety's name and address:

STATE OF _____)
COUNTY OF _____) ss.

By: _____
Attorney-in-Fact (Affix Corporate Seal)

On this ____ day of _____, 20____, personally appeared before me _____, whose identity is personally known to me or proved to me on the basis of satisfactory evidence, and who, being by me duly sworn, did say that he/she is the Attorney-in-fact of the above-named Surety Company, and that he/she is duly authorized to execute the same and has complied in all respects with the laws of Utah in reference to becoming sole surety upon bonds, undertakings and obligations, and that he/she acknowledged to me that as Attorney-in-fact executed the same.

Subscribed and sworn to before me this _____ day of _____, 20____.
My Commission Expires: _____
Resides at: _____

Agency: _____
Agent: _____
Address: _____
Phone: _____

NOTARY PUBLIC

Approved As To Form: May 25, 2005
By Alan S. Bachman, Asst Attorney General

**Division of Facilities Construction and Management****INSTRUCTION AND SUBCONTRACTORS LIST FORM**

The three low bidders, as well as all other bidders that desire to be considered, are required by law to submit to DFCM within 24 hours of bid opening a list of **ALL** first-tier subcontractors, including the subcontractor's name, bid amount and other information required by Building Board Rule and as stated in these Contract Documents, on the following basis:

PROJECTS UNDER \$500,000 - ALL SUBS \$20,000 OR OVER MUST BE LISTED
PROJECTS \$500,000 OR MORE - ALL SUBS \$35,000 OR OVER MUST BE LISTED

- Any additional subcontractors identified in the bid documents shall also be listed.
- The DFCM Director may not consider any bid submitted by a bidder if the bidder fails to submit a subcontractor list meeting the requirements of State law.
- List subcontractors for base bid as well as the impact on the list that the selection of any alternate may have.
- Bidder may not list more than one subcontractor to perform the same work.
- Bidder must list "Self" if performing work itself.

LICENSURE:

The subcontractor's name, the type of work, the subcontractor's bid amount, and the subcontractor's license number as issued by DOPL, if such license is required under Utah Law, shall be listed. Bidder shall certify that all subcontractors, required to be licensed, are licensed as required by State law. A subcontractor includes a trade contractor or specialty contractor and does not include suppliers who provide only materials, equipment, or supplies to a contractor or subcontractor.

BIDDER LISTING 'SELF' AS PERFORMING THE WORK:

Any bidder that is properly licensed for the particular work and intends to perform that work itself in lieu of a subcontractor that would otherwise be required to be on the subcontractor list, must insert the term 'Self' for that category on the subcontractor list form. Any listing of 'Self' on the sublist form shall also include the amount allocated for that work.

'SPECIAL EXCEPTION':

A bidder may list 'Special Exception' in place of a subcontractor when the bidder intends to obtain a subcontractor to perform the work at a later date because the bidder was unable to obtain a qualified or reasonable bid under the provisions of U.C.A. Section 63A-5-208(4). The bidder shall insert the term 'Special Exception' for that category of work, and shall provide documentation with the subcontractor list describing the bidder's efforts to obtain a bid of a qualified subcontractor at a reasonable cost and why the bidder was unable to obtain a qualified subcontractor bid. The Director must find that the bidder complied in good faith with State law requirements for any 'Special Exception' designation, in order for the bid to be considered. If awarded the contract, the Director shall supervise the bidder's efforts to obtain a qualified subcontractor bid. The amount of the awarded contract may not be adjusted to reflect the actual amount of the subcontractor's bid. Any listing of 'Special Exception' on the sublist form shall also include amount allocated for that work.

INSTRUCTIONS AND SUBCONTRACTORS LIST FORM

Page No. 2

GROUND FOR DISQUALIFICATION:

The Director may not consider any bid submitted by a bidder if the bidder fails to submit a subcontractor list meeting the requirements of State law. Director may withhold awarding the contract to a particular bidder if one or more of the proposed subcontractors are considered by the Director to be unqualified to do the Work or for such other reason in the best interest of the State of Utah. Notwithstanding any other provision in these instructions, if there is a good faith error on the sublist form, at the sole discretion of the Director, the Director may provide notice to the contractor and the contractor shall have 24 hours to submit the correction to the Director. If such correction is submitted timely, then the sublist requirements shall be considered met.

CHANGES OF SUBCONTRACTORS SPECIFICALLY IDENTIFIED ON SUBLIST FORM:

Subsequent to twenty-four hours after the bid opening, the contractor may change its listed subcontractors only after receiving written permission from the Director based on complying with all of the following criteria.

- (1) The contractor has established in writing that the change is in the best interest of the State and that the contractor establishes an appropriate reason for the change, which may include, but not is not limited to, the following reasons: the original subcontractor has failed to perform, or is not qualified or capable of performing, and/or the subcontractor has requested in writing to be released.
- (2) The circumstances related to the request for the change do not indicate any bad faith in the original listing of the subcontractors.
- (3) Any requirement set forth by the Director to ensure that the process used to select a new subcontractor does not give rise to bid shopping.
- (4) Any increase in the cost of the subject subcontractor work is borne by the contractor.
- (5) Any decrease in the cost of the subject subcontractor work shall result in a deductive change order being issued for the contract for such decreased amount.
- (6) The Director will give substantial weight to whether the subcontractor has consented in writing to being removed unless the Contractor establishes that the subcontractor is not qualified for the work.

EXAMPLE:

Example of a list where there are only four subcontractors:

TYPE OF WORK	SUBCONTRACTOR, "SELF" OR "SPECIAL EXCEPTION"	SUBCONTRACTOR BID AMOUNT	CONT. LICENSE #
ELECTRICAL	ABCD Electric Inc.	\$350,000.00	123456789000
LANDSCAPING	"Self"	300,000.00	123456789000
CONCRETE (ALTERNATE #1)	XYZ Concrete Inc	298,000.00	987654321000
MECHANICAL	"Special Exception" (attach documentation)	Fixed at: 350,000.00	(TO BE PROVIDED AFTER OBTAINING SUBCONTRACTOR)

**PURSUANT TO STATE LAW - SUBCONTRACTOR BID AMOUNTS CONTAINED IN THIS
SUBCONTRACTOR LIST SHALL NOT BE DISCLOSED UNTIL THE CONTRACT HAS BEEN AWARDED.**

**Division of Facilities Construction and Management****SUBCONTRACTORS LIST
FAX TO 801-538-3677****PROJECT TITLE:** _____**Caution:** You must read and comply fully with instructions.

TYPE OF WORK	SUBCONTRACTOR, "SELF" OR "SPECIAL EXCEPTION"	SUBCONTRACTOR BID AMOUNT	CONT. LICENSE #

We certify that:

1. This list includes all subcontractors as required by the instructions, including those related to the base bid as well as any alternates.
2. We have listed "Self" or "Special Exception" in accordance with the instructions.
3. All subcontractors are appropriately licensed as required by State law.

FIRM: _____

DATE: _____

SIGNED BY: _____

NOTICE: FAILURE TO SUBMIT THIS FORM, PROPERLY COMPLETED AND SIGNED, AS REQUIRED IN THESE CONTRACT DOCUMENTS, SHALL BE GROUNDS FOR DFCMS REFUSAL TO ENTER INTO A WRITTEN CONTRACT WITH BIDDER. ACTION MAY BE TAKEN AGAINST BIDDERS BID BOND AS DEEMED APPROPRIATE BY DFCM. ATTACH A SECOND PAGE IF NECESSARY.

FUGITIVE DUST PLAN

The Contractor will fill out the form and file the original with the Division of Air Quality and a copy of the form with the Division of Facilities Construction & Management, prior to the issuance of any notice to proceed.

The Contractor will be fully responsible for compliance with the Fugitive Dust Control Plan, including the adequacy of the plan, any damages, fines, liability, and penalty or other action that results from noncompliance.

Utah Division of Air Quality

April 20, 1999

**GUIDANCE THAT MUST BE CONSIDERED IN DEVELOPING AND SUBMITTING A
DUST CONTROL PLAN FOR COMPLIANCE WITH R307-309-3, 4, 5, 6, 7**

Source Information:

1. Name of your operation (source): provide a name if the source is a construction site.
2. Address or location of your operation or construction site.
3. UTM coordinates or Longitude/Latitude of stationary emission points at your operation.
4. Lengths of the project, if temporary (time period).
5. Description of process (include all sources of dust and fugitive dust). Please, if necessary, use additional sheets of paper for this description. Be sure to mark it as an attachment.
6. Type of material processed or disturbed.
7. Amount of material processed (tons per year, tons per month, lbs./hr., and applicable units).

8. Destination of product (where will the material produced be used or transported, be specific, provide address or specific location), information needed for temporary relocation applicants.
9. Identify the individual who is responsible for the implementation and maintenance of fugitive dust control measures. List name(s), position(s) and telephone number(s).
10. List, and attach copies of any contract lease, liability agreement with other companies that may, or will, be responsible for dust control on site or on the project.

Description of Fugitive Dust Emission Activities
(Things to consider in addressing fugitive dust control strategies.)

1. Type of activities (drilling and blasting, road construction, development construction, earth moving and excavation, handling and hauling materials, cleaning and leveling, etc).
2. List type of equipment generating the fugitive dust.
3. Diagram the location of each activity or piece of equipment on site. Please attach the diagram.
4. Provide pictures or drawings of each activity. Include a drawing of the unpaved/paved road network used to move loads “on” and “off” property.
5. Vehicle miles travels on unpaved roads associated with the activity (average speed).
6. Type of dust emitted at each source (coal, cement, sand, soil, clay, dust, etc.)
7. Estimate the size of the release area at which the activity occurs (square miles). For haul or dirt roads include total miles of road in use during the activity.

Description of Fugitive Dust Emission Controls on Site

Control strategies must be designed to meet 20% opacity or less on site (a lesser opacity may be defined by Approval Order conditions or federal requirements such as NSPS), and control strategies must prevent exceeding 10% opacity from fugitive dust at the property boundary (site boundary) for compliance with R307-309-3.

1. Types of ongoing emission controls proposed for each activity, each piece of equipment, and haul roads.
2. Types of additional dust controls proposed for bare, exposed surfaces (chemical stabilization, synthetic cover, wind breaks, vegetative cover, etc).
3. Method of application of dust suppressant.
4. Frequency of application of dust suppressant.
5. Explain what triggers the use of a special control measure other than routine measures already in place, such as covered loads or measures covered by a permit condition (increase in opacity, high winds, citizen complaints, dry conditions, etc).
6. Explain in detail what control strategies/measures will be implemented off-hours, i.e., Saturdays/Sundays/Holidays, as well as 6 PM to 6 AM each day.

Description of Fugitive Dust Control Off-site

Prevent, to the maximum extent possible, deposition of materials, which may create fugitive dust on public and private paved roads in compliance with R307-309-5, 6, 7.

1. Types of emission controls initiated by your operation that are in place “off” property (application of water, covered loads, sweeping roads, vehicle cleaning, etc.).

2. Proposed remedial controls that will be initiated promptly if materials, which may create fugitive dust, are deposited on public and private paved roads.

Submit the Dust Control Plan to:

Executive Secretary
Utah Air Quality Board
POB 144820
15 North 1950 West
Salt Lake City, Utah 84114-4820

Phone: (801) 536-4000
FAX: (801) 536-4099

Fugitive Dust Control Plan Violation Report

When a source is found in violation of R307-309-3 or in violation of the Fugitive Dust Control Plan, the source must submit a report to the Executive Secretary within 15 days after receiving a Notice of Violation. The report must include the following information:

1. Name and address of dust source.
2. Time and duration of dust episode.
3. Meteorological conditions during the dust episode.
4. Total number and type of fugitive dust activities and dust producing equipment within each operation boundary. If no change has occurred from the existing dust control plan, the source should state that the activity/equipment is the same.
5. Fugitive dust activities or dust producing equipment that caused a violation of R-307-309-3 or the source's dust control plan.
6. Reasons for failing to control dust from the dust generating activity or equipment.
7. New and/or additional fugitive dust control strategies necessary to achieve compliance with R307-309-3, 4, 5, 6, or 7.
8. If it can not be demonstrated that the current approved Dust Control Plan can result in compliance with R307-309-3 through 7, the Dust Control Plan must be revised so as to demonstrate compliance with 307-309-3 through 7. Within 30 days of receiving a fugitive dust Notice of Violation, the source must submit the revised Plan to the Executive Secretary for review and approval.

Submit the Dust Control Plan to:

Executive Secretary	Phone: (801) 536-4000
Utah Air Quality Board	FAX: (801) 536-4099
POB 144820	
15 North 1950 West	
Salt Lake City, Utah 84114-4820	

Attachments: DFCM Form FDR R-307-309, Rule 307-309

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CONTRACTOR'S AGREEMENT

FOR:

THIS CONTRACTOR'S AGREEMENT, made and entered into this ____ day of _____, 20__, by and between the DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT, hereinafter referred to as "DFCM", and _____, incorporated in the State of _____ and authorized to do business in the State of Utah, hereinafter referred to as "Contractor", whose address is _____.

WITNESSETH: WHEREAS, DFCM intends to have Work performed at _____
_____.

WHEREAS, Contractor agrees to perform the Work for the sum stated herein.

NOW, THEREFORE, DFCM and Contractor for the consideration provided in this Contractor's Agreement, agree as follows:

ARTICLE 1. SCOPE OF WORK. The Work to be performed shall be in accordance with the Contract Documents prepared by _____ and entitled "_____
_____."

The DFCM General Conditions ("General Conditions") dated May 25, 2005 on file at the office of DFCM and available on the DFCM website, are hereby incorporated by reference as part of this Agreement and are included in the specifications for this Project. All terms used in this Contractor's Agreement shall be as defined in the Contract Documents, and in particular, the General Conditions.

The Contractor Agrees to furnish labor, materials and equipment to complete the Work as required in the Contract Documents which are hereby incorporated by reference. It is understood and agreed by the parties hereto that all Work shall be performed as required in the Contract Documents and shall be subject to inspection and approval of DFCM or its authorized representative. The relationship of the Contractor to the DFCM hereunder is that of an independent Contractor.

ARTICLE 2. CONTRACT SUM. The DFCM agrees to pay and the Contractor agrees to accept in full performance of this Contractor's Agreement, the sum of _____ DOLLARS AND NO CENTS (\$_____.00), which is the base bid, and which sum also includes the cost of a 100%

CONTRACTOR'S AGREEMENT
PAGE NO. 2

Performance Bond and a 100% Payment Bond as well as all insurance requirements of the Contractor. Said bonds have already been posted by the Contractor pursuant to State law. The required proof of insurance certificates have been delivered to DFCM in accordance with the General Conditions before the execution of this Contractor's Agreement.

ARTICLE 3. TIME OF COMPLETION AND DELAY REMEDY. The Work shall be Substantially Complete within _____ (____) calendar days after the date of the Notice to Proceed. Contractor agrees to pay liquidated damages in the amount of \$_____ per day for each day after expiration of the Contract Time until the Contractor achieves Substantial Completion in accordance with the Contract Documents, if Contractor's delay makes the damages applicable. The provision for liquidated damages is: (a) to compensate the DFCM for delay only; (b) is provided for herein because actual damages can not be readily ascertained at the time of execution of this Contractor's Agreement; (c) is not a penalty; and (d) shall not prevent the DFCM from maintaining Claims for other non-delay damages, such as costs to complete or remedy defective Work.

No action shall be maintained by the Contractor, including its or Subcontractor or suppliers at any tier, against the DFCM or State of Utah for damages or other claims due to losses attributable to hindrances or delays from any cause whatsoever, including acts and omissions of the DFCM or its officers, employees or agents, except as expressly provided in the General Conditions. The Contractor may receive a written extension of time, signed by the DFCM, in which to complete the Work under this Contractor's Agreement in accordance with the General Conditions.

ARTICLE 4. CONTRACT DOCUMENTS. The Contract Documents consist of this Contractor's Agreement, the Conditions of the Contract (DFCM General Conditions, Supplementary and other Conditions), the Drawings, Specifications, Addenda and Modifications. The Contract Documents shall also include the bidding documents, including the Notice to Contractors, Instructions to Bidders/Proposers and the Bid/Proposal, to the extent not in conflict therewith and other documents and oral presentations that are documented as an attachment to the contract.

All such documents are hereby incorporated by reference herein. Any reference in this Contractor's Agreement to certain provisions of the Contract Documents shall in no way be construed as to lessen the importance or applicability of any other provisions of the Contract Documents.

ARTICLE 5. PAYMENT. The DFCM agrees to pay the Contractor from time to time as the Work progresses, but not more than once each month after the date of Notice to Proceed, and only upon Certificate of the A/E for Work performed during the preceding calendar month, ninety-five percent (95%) of the value of the labor performed and ninety-five percent (95%) of the value of materials furnished in place or on the site. The Contractor agrees to furnish to the DFCM invoices for materials purchased and on the site but not installed, for which the

CONTRACTOR'S AGREEMENT
PAGE NO. 3

Contractor requests payment and agrees to safeguard and protect such equipment or materials and is responsible for safekeeping thereof and if such be stolen, lost or destroyed, to replace same.

Such evidence of labor performed and materials furnished as the DFCM may reasonably require shall be supplied by the Contractor at the time of request for Certificate of Payment on account. Materials for which payment has been made cannot be removed from the job site without DFCM's written approval. Five percent (5%) of the earned amount shall be retained from each monthly payment. The retainage, including any additional retainage imposed and the release of any retainage, shall be in accordance with UCA 13-8-5 as amended. Contractor shall also comply with the requirements of UCA 13-8-5, including restrictions of retainage regarding subcontractors and the distribution of interest earned on the retention proceeds. The DFCM shall not be responsible for enforcing the Contractor's obligations under State law in fulfilling the retention law requirements with subcontractors at any tier.

ARTICLE 6. INDEBTEDNESS. Before final payment is made, the Contractor must submit evidence satisfactory to the DFCM that all payrolls, materials bills, subcontracts at any tier and outstanding indebtedness in connection with the Work have been properly paid. Final Payment will be made after receipt of said evidence, final acceptance of the Work by the DFCM as well as compliance with the applicable provisions of the General Conditions.

Contractor shall respond immediately to any inquiry in writing by DFCM as to any concern of financial responsibility and DFCM reserves the right to request any waivers, releases or bonds from Contractor in regard to any rights of Subcontractors (including suppliers) at any tier or any third parties prior to any payment by DFCM to Contractor.

ARTICLE 7. ADDITIONAL WORK. It is understood and agreed by the parties hereto that no money will be paid to the Contractor for additional labor or materials furnished unless a new contract in writing or a Modification hereof in accordance with the General Conditions and the Contract Documents for such additional labor or materials has been executed. The DFCM specifically reserves the right to modify or amend this Contractor's Agreement and the total sum due hereunder either by enlarging or restricting the scope of the Work.

ARTICLE 8. INSPECTIONS. The Work shall be inspected for acceptance in accordance with the General Conditions.

ARTICLE 9. DISPUTES. Any dispute, PRE or Claim between the parties shall be subject to the provisions of Article 7 of the General Conditions. DFCM reserves all rights to pursue its rights and remedies as provided in the General Conditions.

ARTICLE 10. TERMINATION, SUSPENSION OR ABANDONMENT. This Contractor's Agreement may be terminated, suspended or abandoned in accordance with the General Conditions.

ARTICLE 11. DFCM'S RIGHT TO WITHHOLD CERTAIN AMOUNT AND MAKE USE THEREOF. The DFCM may withhold from payment to the Contractor such amount as, in DFCM's judgment, may be necessary to pay just claims against the Contractor or Subcontractor at any tier for labor and services rendered and materials furnished in and about the Work. The DFCM may apply such withheld amounts for the payment of such claims in DFCM's discretion. In so doing, the DFCM shall be deemed the agent of Contractor and payment so made by the DFCM shall be considered as payment made under this Contractor's Agreement by the DFCM to the Contractor. DFCM shall not be liable to the Contractor for any such payment made in good faith. Such withholdings and payments may be made without prior approval of the Contractor and may be also be prior to any determination as a result of any dispute, PRE, Claim or litigation.

ARTICLE 12. INDEMNIFICATION. The Contractor shall comply with the indemnification provisions of the General Conditions.

ARTICLE 13. SUCCESSORS AND ASSIGNMENT OF CONTRACT. The DFCM and Contractor, respectively bind themselves, their partners, successors, assigns and legal representatives to the other party to this Agreement, and to partners, successors, assigns and legal representatives of such other party with respect to all covenants, provisions, rights and responsibilities of this Contractor's Agreement. The Contractor shall not assign this Contractor's Agreement without the prior written consent of the DFCM, nor shall the Contractor assign any moneys due or to become due as well as any rights under this Contractor's Agreement, without prior written consent of the DFCM.

ARTICLE 14. RELATIONSHIP OF THE PARTIES. The Contractor accepts the relationship of trust and confidence established by this Contractor's Agreement and covenants with the DFCM to cooperate with the DFCM and A/E and use the Contractor's best skill, efforts and judgment in furthering the interest of the DFCM; to furnish efficient business administration and supervision; to make best efforts to furnish at all times an adequate supply of workers and materials; and to perform the Work in the best and most expeditious and economic manner consistent with the interests of the DFCM.

ARTICLE 15. AUTHORITY TO EXECUTE AND PERFORM AGREEMENT. Contractor and DFCM each represent that the execution of this Contractor's Agreement and the performance thereunder is within their respective duly authorized powers.

ARTICLE 16. ATTORNEY FEES AND COSTS. Except as otherwise provided in the dispute resolution provisions of the General Conditions, the prevailing party shall be entitled to reasonable attorney fees and costs incurred in any action in the District Court and/or appellate body to enforce this Contractor's Agreement or recover damages or any other action as a result of a breach thereof.

CONTRACTOR'S AGREEMENT
PAGE NO. 5

IN WITNESS WHEREOF, the parties hereto have executed this Contractor's Agreement on the day and year stated hereinabove.

CONTRACTOR: _____

Signature Date

Title: _____

State of _____)
County of _____)

Please type/print name clearly

On this ____ day of _____, 20____, personally appeared before me, _____, whose identity is personally known to me (or proved to me on the basis of satisfactory evidence) and who by me duly sworn (or affirmed), did say that he (she) is the _____ (title or office) of the firm and that said document was signed by him (her) in behalf of said firm.

(SEAL)

Notary Public

My Commission Expires _____

APPROVED AS TO AVAILABILITY
OF FUNDS:

Financial Manager, Date
Division of Facilities Construction
and Management

**DIVISION OF FACILITIES
CONSTRUCTION AND MANAGEMENT**

Manager - Date
Capital _____

APPROVED AS TO FORM:
ATTORNEY GENERAL
May 25, 2005
By: Alan S. Bachman
Asst Attorney General

APPROVED FOR EXPENDITURE:

Division of Finance Date

PERFORMANCE BOND
(Title 63, Chapter 56, U. C. A. 1953, as Amended)

That _____ hereinafter referred to as the "Principal" and _____, a corporation organized and existing under the laws of the State of _____, with its principal office in the City of _____ and authorized to transact business in this State and U. S. Department of the Treasury Listed (Circular 570, Companies Holding Certificates of Authority as Acceptable Securities on Federal Bonds and as Acceptable Reinsuring Companies); hereinafter referred to as the "Surety," are held and firmly bound unto the State of Utah, hereinafter referred to as the "Obligee," in the amount of _____ DOLLARS (\$ _____) for the payment whereof, the said Principal and Surety bind themselves and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written Contract with the Obligee, dated the _____ day of _____, 20____, to construct _____ in the County of _____, State of Utah, Project No. _____, for the approximate sum of _____ Dollars (\$ _____), which Contract is hereby incorporated by reference herein.

NOW, THEREFORE, the condition of this obligation is such that if the said Principal shall faithfully perform the Contract in accordance with the Contract Documents including, but not limited to, the Plans, Specifications and conditions thereof, the one year performance warranty, and the terms of the Contract as said Contract may be subject to Modifications or changes, then this obligation shall be void; otherwise it shall remain in full force and effect.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the state named herein or the heirs, executors, administrators or successors of the Owner.

The parties agree that the dispute provisions provided in the Contract Documents apply and shall constitute the sole dispute procedures of the parties.

PROVIDED, HOWEVER, that this Bond is executed pursuant to the Provisions of Title 63, Chapter 56, Utah Code Annotated, 1953, as amended, and all liabilities on this Bond shall be determined in accordance with said provisions to the same extent as if it were copied at length herein.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____, 20____.

WITNESS OR ATTESTATION:

PRINCIPAL:

By: _____
(Seal)

Title: _____

WITNESS OR ATTESTATION:

SURETY:

By: _____
Attorney-in-Fact (Seal)

STATE OF _____)
) ss.
COUNTY OF _____)

On this _____ day of _____, 20____, personally appeared before me _____, whose identity is personally known to me or proved to me on the basis of satisfactory evidence, and who, being by me duly sworn, did say that he/she is the Attorney in-fact of the above-named Surety Company and that he/she is duly authorized to execute the same and has complied in all respects with the laws of Utah in reference to becoming sole surety upon bonds, undertakings and obligations, and that he/she acknowledged to me that as Attorney-in-fact executed the same.

Subscribed and sworn to before me this _____ day of _____, 20____.

My commission expires: _____

Resides at: _____

NOTARY PUBLIC

Agency: _____
Agent: _____
Address: _____
Phone: _____

Approved As To Form: May 25, 2005
By Alan S. Bachman, Asst Attorney General

PAYMENT BOND

(Title 63, Chapter 56, U. C. A. 1953, as Amended)

KNOW ALL PERSONS BY THESE PRESENTS:

That _____ hereinafter referred to as the "Principal," and _____, a corporation organized and existing under the laws of the State of _____ authorized to do business in this State and U. S. Department of the Treasury Listed (Circular 570, Companies Holding Certificates of Authority as Acceptable Securities on Federal Bonds and as Acceptable Reinsuring Companies); with its principal office in the City of _____, hereinafter referred to as the "Surety," are held and firmly bound unto the State of Utah hereinafter referred to as the "Obligee," in the amount of _____ Dollars (\$ _____) for the payment whereof, the said Principal and Surety bind themselves and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written Contract with the Obligee, dated the _____ day of _____, 20____, to construct _____ in the County of _____, State of Utah, Project No. _____ for the approximate sum of _____ Dollars (\$ _____), which contract is hereby incorporated by reference herein.

NOW, THEREFORE, the condition of this obligation is such that if the said Principal shall pay all claimants supplying labor or materials to Principal or Principal's Subcontractors in compliance with the provisions of Title 63, Chapter 56, of Utah Code Annotated, 1953, as amended, and in the prosecution of the Work provided for in said Contract, then, this obligation shall be void; otherwise it shall remain in full force and effect.

That said Surety to this Bond, for value received, hereby stipulates and agrees that no changes, extensions of time, alterations or additions to the terms of the Contract or to the Work to be performed thereunder, or the specifications or drawings accompanying same shall in any way affect its obligation on this Bond, and does hereby waive notice of any such changes, extensions of time, alterations or additions to the terms of the Contract or to the Work or to the specifications or drawings and agrees that they shall become part of the Contract Documents.

PROVIDED, HOWEVER, that this Bond is executed pursuant to the provisions of Title 63, Chapter 56, Utah Code Annotated, 1953, as amended, and all liabilities on this Bond shall be determined in accordance with said provisions to the same extent as if it were copied at length herein.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____, 20____.

WITNESS OR ATTESTATION:

PRINCIPAL:

By: _____ (Seal)

Title: _____

WITNESS OR ATTESTATION:

SURETY:

By: _____ Attorney-in-Fact (Seal)

STATE OF _____)
) ss.
COUNTY OF _____)

On this _____ day of _____, 20____, personally appeared before me _____, whose identity is personally known to me or proved to me on the basis of satisfactory evidence, and who, being by me duly sworn, did say that he/she is the Attorney-in-fact of the above-named Surety Company, and that he/she is duly authorized to execute the same and has complied in all respects with the laws of Utah in reference to becoming sole surety upon bonds, undertakings and obligations, and that he/she acknowledged to me that as Attorney-in-fact executed the same.

Subscribed and sworn to before me this _____ day of _____, 20____.

My commission expires: _____

Resides at: _____

NOTARY PUBLIC

Agency: _____
Agent: _____
Address: _____
Phone: _____

Approved As To Form: May 25, 2005
By Alan S. Bachman, Asst Attorney General

**Division of Facilities Construction and Management****CHANGE ORDER #** _____

CONTRACTOR: _____

AGENCY OR INSTITUTION: _____

PROJECT NAME: _____

PROJECT NUMBER: _____

CONTRACT NUMBER: _____

ARCHITECT: _____

DATE: _____

CONSTRUCTION CHANGE DIRECTIVE NO.	PROPOSAL REQUEST NO.	AMOUNT		DAYS	
		INCREASE	DECREASE	INCREASE	DECREASE

	Amount	Days	Date
ORIGINAL CONTRACT			
TOTAL PREVIOUS CHANGE ORDERS			
TOTAL THIS CHANGE ORDER			
ADJUSTED CONTRACT			

DFCM and Contractor agree that the terms, contract sum, scope of the Work and time specified in this Change Order shall constitute the full accord and satisfaction, and complete adjustment to the Contract and includes all direct and indirect costs and effects related to, incidental to, and/or reasonably implied from such change in the contract terms, sum, scope of the Work and time.

Contractor: _____

Date

Architect/Engineer: _____

Date

Agency or Institution: _____

Date

DFCM: _____

Date

Funding Verification: _____

Date

Page ____ of ____ page(s)

**CERTIFICATE OF SUBSTANTIAL COMPLETION**

PROJECT _____ PROJECT NO: _____

AGENCY/INSTITUTION _____

AREA ACCEPTED _____

The Work performed under the subject Contract has been reviewed on this date and found to be Substantially Completed as defined in the General Conditions; including that the construction is sufficiently completed in accordance with the Contract Documents, as modified by any change orders agreed to by the parties, so that the State of Utah can occupy the Project or specified area of the Project for the use for which it is intended.

The DFCM - (Owner) accepts the Project or specified area of the Project as Substantially Complete and will assume full possession of the Project or specified area of the Project at _____ (time) on _____ (date).

The DFCM accepts the Project for occupancy and agrees to assume full responsibility for maintenance and operation, including utilities and insurance, of the Project subject to the itemized responsibilities and/or exceptions noted below:

The Owner acknowledges receipt of the following closeout and transition materials:

☐ Record Drawings ☐ O & M Manuals ☐ Warranty Documents ☐ Completion of Training Requirements

A list of items to be completed or corrected (Punch List) is attached hereto. The failure to include an item on it does not alter the responsibility of the Contractor to complete all the Work in accordance with the Contract Documents, including authorized changes thereof. The amount of _____. (Twice the value of the punch list work) shall be retained to assure the completion of the punch list work.

The Contractor shall complete or correct the Work on the list of (Punch List) items appended hereto within _____ calendar days from the above date of issuance of this Certificate. If the list of items is not completed within the time allotted the Owner has the right to be compensated for the delays and/or complete the work with the help of independent contractor at the expense of the retained project funds. If the retained project funds are insufficient to cover the delay/completion damages, the Owner shall be promptly reimbursed for the balance of the funds needed to compensate the Owner.

CONTRACTOR (include name of firm) by: _____
(Signature) DATE

A/E (include name of firm) by: _____
(Signature) DATE

USING INSTITUTION OR AGENCY by: _____
(Signature) DATE

DFCM (Owner) by: _____
(Signature) DATE

4110 State Office Building, Salt Lake City, Utah 84114
telephone 801-538-3018 • facsimile 801-538-3267 • <http://dfcm.utah.gov>

cc: Parties Noted
DFCM, Director

SECTION 02222

MINOR SITE DEMOLITION

PART 1 GENERAL

1.1 SUMMARY

- A. Includes But Not Limited To
 - 1. Demolish and remove the existing roof system as described in Contract Documents.
 - 2. Remove roof drains on all roof areas.
 - 3. Remove existing coping.
 - 4. Remove obsolete curbs, utility and service lines.
- B. Related Sections
 - 1. New and replacement work specified in appropriate specification section.

1.2 SUBMITTALS

- A. Closeout - Identify obsolete curbs, utility and service lines and capping locations on record drawings.

1.3 SCHEDULING

- A. Include on Construction Schedule, specified in the General Conditions of the Contract, detailed sequence of individual site demolition operations.
- B. Coordinate with Owner for equipment and materials to be removed, disconnected and reconnected in accordance with Contract Documents.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.1 EXAMINATION

- A. Before beginning work of this Section, inspect areas in which work will be performed.
 - 1. Photograph or video tape existing conditions, including surrounding property if necessary, which could be misconstrued as damage resulting from selective demolition.
 - 2. File copies of photographs/video tapes with Consultant before beginning work of this Section.
- B. Upon discovery of conflicts or problems with existing facilities, notify Consultant with diagrams indicating conflict or problem and sufficient measurements and details to evaluate problem.

3.2 PREPARATION

- A. Notify corporations, companies, individuals, and local authorities owning conduits running to property.
 - 1. Protect and maintain conduits, drains, sewers, pipes, and wires that are to remain on the property.
- B. Cease demolition operations and notify Consultant immediately if safety of structure appears to be endangered. Do not resume demolition operations until safety is restored.
- C. Cover and protect furniture, equipment, fixtures and interior of building from soiling, weathering and damage when demolition work is performed. Repair and or replace all damaged items not specified in the Contract Documents at no additional cost to the Owner.
- D. Provide weatherproof closures for exterior openings resulting from demolition work.
- E. Existing Plants & Features - Do not damage tops, trunks, and roots of existing trees and shrubs on site which are intended to remain. Do not use heavy equipment within branch spread. Interfering branches may be removed only with permission of the Owner. Do not damage other plants and features which are to remain.
- F. Coordinate with the Owner when disconnect and reconnect of any items are necessary to complete demolition.

3.3 PERFORMANCE

- A. Execute work in an orderly and careful manner.
- B. Carefully remove, disassemble, or dismantle as required, and store in approved location on site, existing items to be reused in completed work. Disconnect and reconnect items where necessary to accomplish demolition.
- C. If specified precautions are not taken or corrections and repairs made promptly, Owner may take such steps as may be deemed necessary and deduct costs of such from monies due to Contractor. Such action or lack of action on Owner's part does not relieve Contractor from responsibility for proper protection of the Work.

3.4 CLEANING

- A. Keep building, site, and adjoining streets reasonably clean, and sweep areas affected by demolition operations daily during performance of demolition. If necessary, sprinkle rubbish and debris to lay dust.
- B. Promptly remove materials, rubbish, and debris from building and from property.

END OF SECTION

SECTION 06090

WOOD AND PLASTIC FASTENINGS

PART 1 GENERAL

1.1 SUMMARY

- A. Includes But Not Limited To
 - 1. Quality of wood fastening methods and materials unless specified otherwise.
- B. Related Sections
 - 1. Section 06110 - Wood Framing.

1.2 SUBMITTALS

- A. Shop Drawings
 - 1. Show type, quantity, and installation location of framing anchors. Where necessary, reference Drawing details, etc, for installation locations.
- B. Quality Assurance / Control - Manufacturer's literature on framing anchors.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Fasteners
 - 1. Expansion Bolts -
 - a. Acceptable Products -
 - 1) Kwik Bolt II by Hilti, Tulsa, OK (800) 333-1150 or (918) 252-6000 www.hilti.com
 - 2) Trubolt by Ramset / Redhead Division of ITW, Wood Dale, IL (630) 350-0370 www.ramset-redhead.com
 - 3) Equals as approved by Consultant through shop drawing submittal before installation. See Section 01600

PART 3 EXECUTION

3.1 ERECTION

- A. Secure one Manufacturer approved fastener in each hole of framing anchor that bears on framing member unless approved otherwise in writing by Consultant. 'Boss' system by ACS is acceptable nailing system for framing anchors.
- B. Provide bolt heads and nuts bearing on wood with washers.

END OF SECTION

SECTION 06110

WOOD FRAMING

PART 1 GENERAL

1.1 SUMMARY

- A. Includes But Not Limited To
 - 1. Furnish and install wood framing and blocking as described in Contract Documents.
- B. Products Installed But Not Supplied Under This Section
 - 1. Wood & Plastic Fasteners
- C. Related Sections
 - 1. Sections 06090 - Wood & plastic fasteners
 - 2. Section 06165 - Wood panel product sheathing

1.2 SUBMITTALS

- A. See General Conditions.
- B. Quality Assurance / Control
 - 1. Technical and engineering data on nails to be set by nailing guns for Consultant's approval of types proposed to be used as equivalents to specified hand set nails.

1.3 DELIVERY, STORAGE, AND HANDLING

- A. Protect lumber and plywood and keep under cover in transit and at job site.
- B. Do not deliver material unduly long before it is required.
- C. Store lumber and plywood on level racks and keep free of ground to avoid warping. Stack to insure proper ventilation and drainage.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Dimension Lumber
 - 1. Meet requirements of PS 20-70 and National Grading Rules for softwood dimension lumber.
 - 2. Bear grade stamp of WWPA, SPIB, or other association recognized by American Lumber Standards Committee identifying species of lumber by grade mark or by Certificate of Inspection.
 - 3. Lumber 2 inches or less in nominal thickness shall not exceed 19 percent in moisture content at time of fabrication and installation and be stamped 'S-DRY', 'K-D', or 'MC15'.
 - 4. Lumber shall be S4S.
 - 5. Pressure Treated Plates -
 - a. 2x4 - Standard and better Douglas Fir, Southern Pine, or HemFir.
 - b. 2x6 And Wider - No. 2 Douglas Fir, Southern Pine, or HemFir.

- B. Accessory / Equipment Mounting - Full sized, sound lumber without splits, warps, wane, loose knots, or knots larger than 1/2 inch.

PART 3 EXECUTION

3.1 ERECTION

- A. General - Use pressure treated wood for wood members in contact with concrete or masonry, including wall, sill, and ledger plates, door and window subframes and bucks, etc.
- B. Interface With Other Work - Coordinate with other Sections for location of blocking required for installation of equipment and building specialties.

END OF SECTION

SECTION 06165

WOOD PANEL PRODUCT SHEATHING

PART 1 GENERAL

1.1 SUMMARY

- A. Includes But Not Limited To
 - 1. Furnish and install wood panel product sheathing required for walls, roofs, and floors as described in Contract Documents.

1.2 SUBMITTALS

- A. See General Conditions.
- B. Quality Assurance / Control - Technical and engineering data on fasteners to be set by pneumatic devices for Consultant's approval of types proposed to be used as equivalents to specified hand set nails.

1.3 DELIVERY, STORAGE, AND HANDLING

- A. Protect sheathing and keep under cover in transit and at job site.
- B. Do not deliver material unduly long before it is required.
- C. Store sheathing on level racks and keep free of ground. Stack to insure proper ventilation and drainage.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Sheathing
 - 1. Ply-wood meet requirements of PS 1-83 / ANSI A199.1.
 - 2. Every sheet of sheathing shall be stamped as follows -
 - a. Appropriate APA grade stamp identifying species, thickness and span rating.
 - b. Sheathing shall be stamped 'Sized for Spacing'.
 - c. Exposure 1 or Exterior.
 - 3. Sheathing shall not exceed 18 percent moisture content when fabricated nor more than 19 percent when installed in Project.
 - 4. Sheathing used for same purpose shall be of same thickness. In all cases, thickness specified is minimum required regardless of span rating.
 - 5. Minimum span ratings for given thicknesses shall be as follows -

<u>Thickness</u>	<u>Span Rating</u>
3/8 inch nominal	24/0
15/32 inch actual	32/16
1/2 inch nominal	32/16
19/32 inch actual	40/20
5/8 inch nominal	40/20
23/32 inch actual	48/24
3/4 inch nominal	48/24

- B. Nails
 - 1. 3/8 inch panel - 8d common or box.
 - 2. 15/32 inch and thicker panels - 10d common or galvanized box.

PART 3 EXECUTION

3.1 INSTALLATION

- A. General
 - 1. Top of nail heads shall be flush with sheathing surface.
 - 2. Use of edge clips to provide spacing between sheathing panels is acceptable.
- B. Wall Sheathing
 - 1. Spacing -
 - a. Provide 1/8 inch space between sheets at end and side joints.
 - b. Stagger panel end joints.
 - 2. Edge Bearing And Blocking -
 - a. Panel edges shall bear on framing members and butt along their center lines.
 - b. Back block panel edges which do not bear on framing members with 2 inch nominal framing.
 - 3. Nailing - Place nails not less than 3/8 inch in from edge and 12 inches on center along intermediate supports and 4 inches on center along panel edge unless shown otherwise on Drawings.
 - 4. Thickness - 15/32 inch actual minimum.
- C. Roof Sheathing
 - 1. Placing -
 - a. Lay face grain at right angles to supports. Provide blocking for support where framing turns at roof overhang.
 - b. Provide 1/8 inch space between sheets at end and side joints.
 - c. Stagger panel end joints.
 - d. Sheathing shall be continuous of two spans minimum.
 - 2. Nailing -
 - a. Place nails at least 3/8 inch in from edge.
 - b. Nail 6 inches on center along supported edges.
Nail 12 inches on centers on intermediate supports.
 - c. Nail 4 inches on center at -
 - 1) Diaphragm boundaries
 - 2) Blocking above plywood sheathed walls and block masonry walls
 - 3) At shear wall struts and fascias.
 - 3. As indicated on drawings.

3.2 PROTECTION

- A. Protect roof sheathing from moisture until roofing is installed.

END OF SECTION

SECTION 07534

EPDM MEMBRANE ROOFING

PART 1 GENERAL

1.1 SUMMARY

- A. Includes But Not Limited To
 - 1. Furnish and install fully adhered membrane roofing system as described in Contract Documents.

1.2 REFERENCES

- A. American Society For Testing And Materials
 - 1. ASTM C 209, 'Standard Specification for Polyisocyanurate Insulating Board.'
 - 2. ASTM C 920-95, 'Standard Specification for Elastomeric Joint Sealants'
 - 3. ASTM D 1622, 'Standard Specification for Polyisocyanurate Insulating Board.'
 - 4. ASTM D 2126, 'Standard Specification for Polyisocyanurate Insulating Board.'
 - 5. ASTM D 573, 'Standard Specification for EPDM Roofing Membrane.'
 - 6. ASTM D 751 Grab Method, 'Standard Specification for EPDM Roofing Membrane.'
 - 7. ASTM D 751 B Tongue Tear Method, 'Standard Specification for EPDM Roofing Membrane.'
 - 8. ASTM G 26, 'Standard Specification for EPDM Roofing Membrane.'

1.3 SUBMITTALS

- A. Product Data - Manufacturer's literature or cut sheet for each element of system
- B. Shop Drawings - Prepared by Membrane Manufacturer or its representative. Include outline of roof and roof size, location and type of penetrations, perimeter and penetration details, special details, and bill of materials.
- C. Quality Assurance/Control
 - 1. 2 copies of Manufacturer's published specification for Consultant and maintain one at job-site.
 - 2. Roofing System Manufacturer' certification of Installer.
- D. Closeout - Submit record shop drawings to Manufacturer, if requested. Record shop drawings shall be given shop drawing number by Membrane Manufacturer.

1.4 QUALITY ASSURANCE

- A. Qualifications - Applicator shall be approved by Roofing System Manufacturer.
- B. Regulatory Requirements
 - 1. System shall have Class 'B' rating from UL.
 - 2. Perimeter wood blocking, insulation, and sheet metal installation shall be in compliance with recommendations of FM Loss Prevention Data Sheet 1-49, June 1985.

- C. Pre-Installation Meeting - Schedule meeting after installation of roof sheathing but prior to application of roofing system.

1.5 DELIVERY, STORAGE, & HANDLING

- A. Make no deliveries to Project until installation is about to commence, or until approved storage area is provided. Deliver and maintain materials in Manufacturer's original, unopened containers or rolls, with labels intact and legible.
- B. Store materials, except membranes, in dry place with temperatures between 60 and 80 deg F. Restore materials which are allowed to become colder than specified temperature to proper temperature before using. Store materials on clean, raised platforms and with weather protective covering when stored outdoors.
- C. Select and operate material handling equipment so as not to damage existing construction or new roofing system, or to overload structural system.

1.6 PROJECT / SITE CONDITIONS

- A. Environmental Requirements
 - 1. Temperature ranges shall be within tolerances allowed for material being used.
 - 2. Follow specified precautions for storage of materials and expose only enough adhesive to be used within four hour period.
 - 3. Roof surface shall be free of ponded water, ice, and snow.
 - 4. Do not expose membrane and accessories to constant temperature in excess of 180 deg F.

1.7 WARRANTY

- A. Contractor's written 5 year warranty covering workmanship and repairs or replacement of work without cost to Owner.
- B. Membrane Manufacturer's written 30 year warranty covering roofing system, including insulation and membrane degradation.
- C. Membrane Manufacturer's written 30 year warranty covering EPDM membrane and flashings.

PART 2 PRODUCTS

2.1 COMPONENTS

- A. Insulation
 - 1. FM or UL approved.
 - 2. 1/4 inch per foot tapered polyisocyanurate insulation-starting at 1 1/2 inch where tapered insulation is indicated.
 - 3. Polyisocyanurate cricket which is double the slope of the designed or structural substrate it is installed on. Start cricket material at 1/4 inch.
 - 4. Tapered wood fiber board starting 0 - 1/4 inch at the leading edge of all crickets to smooth transition.
 - 5. 1 1/2 inch thick polyisocyanurate insulation to be installed over roof areas that are structurally sloped.
- B. Membrane
 - 1. EPDM, 0.090 inch thick by optimum width and length determined by job

- conditions
- 2. Approved Manufacturers -
 - a. Carlisle SynTec Systems, Carlisle, PA
 - b. Versico, Akron, OH
 - c. Firestone Building Products, Carmel, IN
- C. Elastomeric Sealant
 - 1. Meet requirements of one of following -
 - a. ASTM C 920, Type M, Grade NS, Use NT, Class 25
 - b. Fed Spec TT-S-001543A.

2.2 ACCESSORIES

- A. Elastomeric Sheet Flashing - Uncured EPDM, 0.060 inch thick.
- B. Bonding (Flashing) Adhesive - As furnished by Membrane Manufacturer.
- C. Splicing Adhesive - EPDM based contact cement furnished by Membrane Manufacturer.
- D. 6 inch Splice Tape - As furnished by Membrane Manufacturer.
- E. 6 inch EPDM Pressure Sensitive Cover Strip - As furnished by Membrane Manufacturer.
- F. Lap Sealant - EPDM based, trowel or gun consistency as selected by Membrane Manufacturer.
- G. Water Cut-Off Mastic - As furnished by Membrane Manufacturer.
- H. Surface Cleaner - As furnished by Membrane Manufacturer.
- I. Surface Primerer - As furnished by Membrane Manufacturer.
- J. Mastic - One component, low viscosity, self-wetting butyl mastic.
- K. Reinforced Universal Securement Strip (RUSS) and Fasteners - As furnished by Membrane Manufacturer.
- L. 2 inch Fastening Plate - As furnished by Membrane Manufacturer.
- M. Plate Fasteners - As furnished by Membrane Manufacturer.
- N. Walk Tread - As furnished by Membrane Manufacturer.

PART 3 EXECUTION

3.1 PREPARATION

- A. Protection
 - 1. Prevent interior leakage, materials falling into interior, and other such occurrences.
 - 2. Install temporary water cut-offs at completion of each day's work and completely remove upon resumption of work.

3. Provide temporary walkways and work platforms as necessary to complete work under this Section with no damage to existing surfaces, surfaces exposed during work, and to new materials applied.
 4. Coordinate application of membrane to provide protection of underlying materials from wetting or other damage by the elements on a continuous basis.
 5. Sheet metal sleeves, caps, and enclosures shall be completely installed on daily basis.
- B. Surface Preparation
1. Surfaces to receive new materials shall be free of dirt, debris, loose materials and free moisture. Mechanically scrape exposed surfaces, if necessary to remove projections.
 2. Verify that surfaces receiving new materials have no defects or errors which would result in poor application or cause latent defects in workmanship.
 3. Inspect anchoring of wood members for conformance to specified requirements. Upgrade nonconforming fasteners to meet specified requirements.
 4. Reset or replace existing fasteners that are loose, deformed, damaged, or corroded.
 5. Fill insulation joints wider than 1/4 inch with insulation cut to fit.

3.2 INSTALLATION

- A. Installation shall be in conformance with latest edition of Manufacturer's specification except where Contract Documents are more restrictive.
- B. Wood Blocking & Nailers
1. Blocking, nailers and sheathing shall be installed in straight lines and level planes at proper elevation for installation of roofing system and in accordance with recommendations of FM Loss Prevention Data Sheet 1-49, June 1986 and Manufacturer's requirements.
 - a. Do not use warped wood members unless they can be fastened adequately to permanently hold them in their required alignment.
 - b. Top surface of horizontal blocking shall match elevation of surface of roof insulation.
 2. Lumber/Plywood Connections to Lumber -
 - a. Nail spacing shall be 12 inches on center maximum and staggered across face of piece. Locate nails within 3 inches of each end of piece. Roof edge blocking 8 feet each way outside from corners shall be nailed at 6 inches on center maximum.
 - b. Drive nail heads flush with wood surface. Penetration into connecting piece shall be 1-1/4 inch minimum.
 - c. Installed withdrawal resistance shall be 100 lbs per nail minimum.
 3. Lumber/Plywood Anchors to Masonry or Concrete -
 - a. Space anchors as shown on Drawings or 3 feet on center maximum when not shown. Stagger anchors if members are more than 5 inches wide. Roof edge blocking 8 feet each way from outside corners shall be nailed at 18 inches on center maximum.
 - b. Countersink head of anchors to be flush with surface.
 - c. Withdrawal resistance shall be 300 lbs per anchor minimum or number of anchors increased to equal that specified. Minimum penetration into masonry shall be 1-1/2 inches.
- C. Insulation
1. Mechanically attach insulation board to deck in accordance to the

Manufacturer's specification to meet FM 1-90 compliance. Use the proper fastener type for the deck type.

2. Moisture content of insulation shall not exceed 4 percent.

D. Membrane Placing

1. Position membrane over substrate without stretching.
2. Allow membrane to relax approximately 1/2 hour prior to splicing and flashing.
3. Fold sheet back so one half of underside of sheet is exposed. Sheet fold shall be smooth, no wrinkles or buckles.
4. Install separation sheet over insulation which needs protection from solvents.
5. Apply bonding adhesive evenly to one half of underside of membrane and to substrate as recommended by Membrane Manufacturer. Apply so bonding adhesive on both surfaces dries simultaneously. Allow to dry until tacky.
6. Standing at fold, roll membrane slowly onto coated substrate without causing wrinkles.
7. Press bonded sheet to substrate with stiff broom.
8. Fold uncoated half of membrane back and repeat steps 5 through 7 above.

E. Membrane Splicing

1. Fold top sheet back about 12 inches. Clean both mating surfaces at splice areas with splice wash and clean dry natural fiber rags. Change rags when they become loaded with dirt and dust. Sponges, sponge mops, squeegees, brushes, paint rollers, etc. are not acceptable for washing seams.
2. Apply primer to both mating surfaces according to manufacturer's recommendations.
3. Apply 6 inch splice tape to top sheet. The splice tape is to extend 1/4 inch beyond the leading edge. Press splice tape securely into position with hand pressure ensuring that the splice tape is not wrinkled or stretched.
4. Roll the top sheet into place allowing it to fall freely into place. Avoid stretching and wrinkling.
5. Remove release paper from the splice tape and press into place with hand pressure applied in perpendicular movement. Roll entire length of the splice with 2 inchwide steel roller using positive pressure rolling in a perpendicular motion across the width of the splice.
6. Clean the entire length of the splice 4 inches on both sides of the leading edge. Apply primer to the cleaned area according to manufacturer's recommendations.
7. Install pressure sensitive cover strip to the clean primed area. Center the cover strip over the leading edge of the splice.
8. Roll entire length of the cover strip with 2 inchwide steel roller using positive pressure rolling in a perpendicular motion across the width of the cover strip.
9. Clean both edges of the cover strip extending one inch minimum onto top and bottom membranes with splice wash.
10. Apply a bead of lap sealant completely covering the edge of the cover strip. Feather lap sealant according to the manufacturer's recommendations. Complete lap sealant application by the end of each working day.

F. Perimeter Securement

1. Install Russ at perimeter of each roof level as follows -
 - a. Securement shall be provided at the perimeter of each roof level, roof section, curb flashing, expansion joints and similar penetrations. RUSS fastening strips shall be mechanically fastened through membrane, insulation, and into roof blocking, as detailed or recommended by membrane manufacturer using approved fasteners.

- 1) Top mechanical fasteners shall be set flush with the top surface of the plate. Space mechanical fasteners a maximum of 12 inches on center starting one inch from the end of RUSS strip.
- 2) After mechanically fastening the RUSS, it will be sealed with a strip of EPDM using splicing cement.

G. Flashing

1. Complete splice between flashing and main roof sheet before bonding flashing to vertical surface. Splice shall extend at least 6 inches beyond fasteners which attach membrane to horizontal surface.
 - a. Clean surface of EPDM in splice area with surface cleaner, using clean rags.
 - b. Apply bonding adhesive to both flashing and surface to which it is being bonded at rate covering approximately 60 sq ft of finished surface.
 - c. After bonding adhesive has dried to point where it does not string or stick to dry finger, roll flashing into adhesive. Assure that flashing does not bridge where there are changes of direction, for example, where parapet meets roof deck.
 - d. Nail installed flashing at top of flashing every 12 inches on center maximum under metal counterflashing or cap.

H. Daily Seal

1. Exercise care to ensure that water does not flow beneath completed sections of roof. Temporarily seal loose edge of membrane daily and when weather is threatening.
 - a. Mix two components thoroughly according to instructions on label.
 - b. Apply at rate of 100 lineal feet per gallon to smooth surfaces, and 12 inches from edge of membrane onto exposed substrate. If necessary, use trowel to spread material in order to achieve complete seal.
 - c. After embedding membrane, check for continuous contact. Weight edge to provide continuous pressure over length of cut-off.
 - d. Pull sheet free before continuing installation.

3.3 FIELD QUALITY CONTROL

- A. Withdrawal tests of fasteners and nailers may be required.
- B. Samples of flashing will be taken to determine degree to which it has cured prior to installation.
- C. Sample of completed splice may be required at location selected by Consultant. Patching of test opening shall be at no additional cost to Owner and use specified splicing methods.
- D. Field tests may be performed by Consultant to evaluate moisture content of installed materials.
- E. Application of roof system will be checked by Consultant.
- F. Upon completion of installation, representative of Membrane Manufacturer shall make inspection to ensure that system was installed according to Manufacturer's published specifications and details. Make no deviations from Manufacturer's specifications without prior approval by the Manufacture.

3.4 CLEANING

- A. Remove roofing materials from surfaces not specified to receive these materials such as walls, walkways, metal flashings, etc.
- B. Repair existing grass areas, plantings, and other site improvements that are damaged or altered during performance of roofing work.
- C. Remove scraps, equipment, debris, and foreign materials from roof and grounds at completion of the Work.
- D. Check roof drains to determine if drain is plugged, or if drain bowl, clamping ring, dome, etc, are damaged.

END OF SECTION

SECTION 07621

STEEL FLASHING & COUNTERFLASHING

PART 1 GENERAL

1.1 SUMMARY

- A. Includes But Not Limited To
 - 1. Furnish and install flashing, counterflashing, coping caps and hold-down clips as described in Contract Documents and not specified to be of other material.
- B. Related Sections
 - 1. Section 07534 - EPDM Membrane Roofing
 - 2. Section 07900 - Joint Sealers

1.2 REFERENCES

- A. American Society For Testing And Materials
 - 1. ASTM A 361-94, 'Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process for Roofing and Siding'
 - 2. Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA), 'Architectural Sheet Metal Manual', Fifth Edition, 1995.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Sheet Metal
 - 1. Galvanized iron or steel meeting requirements of ASTM A 361, G 90.
 - a. 20 ga for hold-down clips.
 - b. 24 ga for all other.
 - 2. Finish -
 - a. Metal exposed to view shall have face coating of polyvinylidene Fluoride (PVF₂) Resin-base finish (Kynar 500 or Hylar 5000) containing 70 percent minimum PVF₂ in resin portion of formula. Thermo cured two coat system consisting of corrosion inhibiting epoxy or acrylic latex primer and top coat factory applied over properly pretreated metal. Reverse side coating shall be thermo cured system consisting of corrosion inhibiting epoxy or acrylic latex primer applied over properly pretreated metal.
 - b. Color as selected by Owner from Manufacturer's standard colors.
- B. Screws, Bolts, Nails, & Accessory Fasteners - Of strength and type consistent with function.

2.2 FABRICATION

- A. Form accurately to details.
- B. Profiles, bends, and intersections shall be even and true to line.

- C. Fold exposed edges ½ inch to provide stiffness.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install with small, watertight seams.
- B. Slope to provide positive drainage.
- C. Provide sufficient hold down clips to insure true alignment and security against wind.
- D. Provide 4 inch minimum overlap.
- E. Allow sufficient tolerance for expansion and contraction.
- F. Insulate work to prevent electrolytic action.
- G. Conceal fasteners where possible. Paint heads of exposed fasteners to match background.
- H. Repair buckling or bowing due to improper installation at no cost to Owner.
- I. Fabricate and install all flashings and counter flashings in accordance with Contract Documents and SMACNA.

3.2 CLEANING

- A. Leave metals clean and free of defects, stains, and damaged finish. Any damaged or stained metals may be replaced and reinstalled at the contractors expense.

END OF SECTION

SECTION 07920

JOINT SEALANTS

PART 1 GENERAL

1.1 SUMMARY

- A. Includes But Not Limited To
 - 1. Quality of sealants to be used on Project not specified elsew here, including submittal, material, and installation requirements.
 - 2. Removing existing sealants specified in Sections where work required.
 - 3. Furnishing and installing of primer and sealants are specified in Sections specifying work to receive new sealants.

1.2 SUBMITTALS

- A. See "General Conditions of the Contract".
- B. Product Data
 - 1. Manufacturer's literature and installation recommendations for each Product.
 - 2. Schedule showing joints requiring sealants with backing and primer to be used.
- C. Quality Assurance/Control - Furnish certificate from Manufacturer indicating date of manufacture.

1.3 DELIVERY, STORAGE, & HANDLING

- A. Handle to prevent inclusion of foreign matter, damage by water, or breakage.
- B. Deliver and keep in original containers until ready for use.
- C. Do not use damaged or deteriorated materials.
- D. Store in a cool place, but never under 40 deg F.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Sealants
 - 1. Dow Corning 791 or 795
 - 2. Primer and sealants provided shall meet Manufacturer's shelf-life requirements.
 - 3. Exterior Sheet Metal & Miscellaneous -
 - a. Roof vents & flues
 - b. Flashings

2.2 APPROVED MANUFACTURERS

- A. Dow Corning Corp, Midland, MI (800) 248-2481

PART 3 EXECUTION

3.1 PREPARATION

- A. Remove existing sealants where specified. Surfaces shall be clean, dry, and free of dust, oil, grease, dew, or frost.
- B. Apply primer if recommended by manufacturer.

3.2 APPLICATION

- A. Apply sealant with hand-calking gun with nozzle of proper size to fit joints. Use sufficient pressure to insure full contact to both sides of joint to full depth of joint.
- B. Tool joints immediately after application of sealant if required to achieve full bedding to substrate or to achieve smooth sealant surface.
- C. Depth of sealant bite shall be 1/4 inch minimum and 1/2 inch maximum, but never more than one half or less than one fourth joint width.
- D. Do not apply calking at temperatures below 40 deg F.
- E. Calk opening perimeters unless indicated otherwise.
- F. Apply a second course of sealant if cracks and sumps.

3.3 CLEANING

- A. Clean adjacent materials which have been soiled immediately (before setting) as recommended by Manufacturer.

END OF SECTION

SECTION 15051

GENERAL MECHANICAL REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

- A. Includes But Not Limited To
 - 1. General requirements and procedures for mechanical systems.
 - 2. It shall be the responsibility of the roofing contractor to retain the services of a mechanical contractor to disconnect and reconnect mechanical equipment on the roofs where it becomes necessary to raise items of mechanical equipment to properly flash curbs or pipes.
 - 3. Contractor shall include all materials and labor necessary to extend duct work, piping, etc. as may be required.
 - 4. Contractor shall co-ordinate this work with the Owner so as to keep the interruption of equipment operation to a minimum. Adequate lead time shall be provided.
 - 5. Prime and paint all exposed existing mechanical components on the roof top.

1.2 QUALITY ASSURANCE

- A. Requirements of Regulatory Agencies
 - 1. Perform work in accordance with applicable provisions of local Plumbing Code, Gas Ordinances, and adoptions thereof. Provide materials and labor necessary to comply with rules, regulations, and ordinances.
 - 2. In case of differences between building codes, state laws, local ordinances, utility company regulations, and Contract Documents, the most stringent shall govern. Promptly notify Consultant in writing of such differences.

1.3 WARRANTIES

- A. Guarantee heating, cooling, and plumbing systems to be in the same working condition prior to construction.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.1 EXAMINATION

- A. Site Inspection
 - 1. Examine premises to understand conditions which may affect performance of work of this Division before submitting proposals for this work.
 - 2. No subsequent allowance for time or money will be considered for any consequence related to failure to examine site conditions.
- B. Ensure that items to be furnished fit space available. Make necessary field measurements to ascertain space requirements including those for connections and furnish and install equipment of size and shape so final installation shall suit true intent and meaning of Contract Documents. If approval is received by Addendum or Change Order to use other than originally specified items, be responsible for

specified capacities and for ensuring that items to be furnished will fit space available.

- C. Owner shall familiarize contractor with location of controls, equipment, etc. which effect his work.

3.2 REPAIR / RESTORATION

- A. Patch and repair walls, floors, ceilings, and roofs with materials of same quality and appearance as adjacent surfaces unless otherwise shown. Surface finishes shall exactly match existing finishes of same materials.
- B. Each Section of this Division shall bear expense of cutting, patching, repairing, and replacing of work of other Sections required because of its fault, error, tardiness, or because of damage done by it.
- C. In the event that roof top cooling units or miscellaneous equipment have to be lifted from the roof structure to accomplish the reroofing work, contractor shall make whatever arrangements which are necessary to provide equipment, etc. to safely remove these items from the roof and replace them upon completion of work.
- D. Upon replacement of equipment after reroofing work is complete, contractor shall reconnect all disrupted services to same and test run unit prior to turning it over to owner.
- E. It shall be the responsibility of this contractor to verify that this air conditioning and miscellaneous equipment is in operational condition prior to his removal of same.

3.3 ADJUSTMENT

- A. Repair any items damaged caused by work. Work shall be repaired or replaced by the contractor at no cost to the owner.

3.4 CLEANING

- A. Clean exposed piping, duct work, equipment, and fixtures. Remove stickers from fixtures and adjust flush valves as described in the Contract Documents.

END OF SECTION

SECTION 15411

ROOF DRAINS

PART 1 GENERAL

1.1 SUMMARY

- A. Includes But Not Limited To
 - 1. Furnish and install roof drains as described in Contract Documents.

PART 2 PRODUCTS

2.1 MANUFACTURED UNITS

- A. Roof Drains
 - 1. 3 inches with Duco cast-iron body, with adjustable extension, flash collar sump receiver #2130YR round clamping cover, under deck clamp, and cast iron grate.
 - a. Approved Models -
 - 1) JR Smith - 1015
 - 2) Zurn - Z 100 EA

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify roof drain locations with Project Drawings, furnish and install all roof drains.

3.2 INSTALLATION

- A. Roof Drains
 - 1. Install roof drains in accordance with Manufacturer's instructions.
 - 2. Take care during installation to see that provisions are made for proper support of roof drains and that piping is accurately set and protected from movement and damage.
 - 3. Do not use flexible water piping.

END OF SECTION

SECTION 16051

GENERAL ELECTRICAL REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

- A. Includes But Not Limited To
 - 1. General electrical requirements and procedures.
 - 2. It shall be the responsibility of the Contractor to retain the services of an electrical contractor to disconnect and reconnect electrical equipment on the roof where it becomes necessary to raise items of mechanical equipment to properly flash curbs or pipes.
 - 3. Contractor shall include all materials and labor necessary to extend electrical services as may be required.

1.2 QUALITY ASSURANCE

- A. Requirements of Regulatory Agencies
 - 1. NEC and local ordinances and regulations shall govern unless more stringent requirements are specified.
 - 2. Material and equipment provided shall meet standards of NEMA or UL, and bear their label wherever standards have been established and label service is available.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.1 EXAMINATION

- A. Confirm dimensions, ratings, and specifications of equipment to be installed and coordinate these with site dimensions and with other Sections.
- B. It shall be the responsibility of the Contractor to verify that this air conditioning and miscellaneous equipment is in operational condition prior to removal of same.
- C. Contractor shall co-ordinate this work with the Owner so as to keep the interruption of equipment operation to a minimum. Adequate lead time shall be provided.
- D. Owner shall familiarize Contractor with location of controls, electrical panels, etc. which effect this work.

3.2 INSTALLATION

- A. In the event that roof top cooling units or miscellaneous equipment need to be lifted from the roof structure to accomplish the reroofing work, the Contractor shall make whatever arrangements which are necessary to provide equipment, etc. to safely remove these items from the roof and replace them upon completion of work.
- B. Any items damaged by this Contractor's work shall be repaired or replaced at no cost to the Owner.

3.3 FIELD QUALITY CONTROL

- A. Site Tests - Test systems and demonstrate equipment as working and operating properly. Notify Consultant prior to test. Rectify defects at no additional cost to Owner.
- B. Upon replacement of equipment after re-roofing work is complete, Contractor shall reconnect all disrupted services to same and test run unit prior to turning it over to Owner.

END OF SECTION